

**TECHNICAL DATA SHEET**  
**NU ALLOY® DP 40**  
**DPFTPT-016**

**1. GENERALITIES OF THE PRODUCT**

*Nu Alloy® dp 40* is an alloy for dental amalgam made of mixed modified particles with a high content of copper and free of zinc. These characteristics guarantee the mechanical properties, eliminate the presence of phase gamma-2 from the amalgam and avoid secondary or retarded expansion due to contact with humidity during the condensation process.

The composition and morphology of the particles guarantee the compliance of the international normative requirements. Thanks to the fact that the presence of phase gamma-2 is eliminated in the microstructure of the restorations, problems of mechanical fragility or corrosion are avoided.

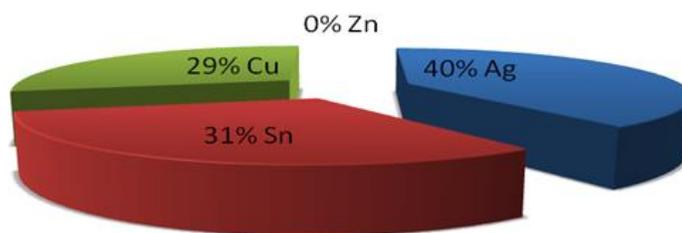
The combination of atomized spherical and lathe-cut prismatic particles allows for obtaining of a product with excellent characteristics.

- ✓ Adequate mercury content.
- ✓ Resistance to compression, which allows enduring the different occlusal burdens.
- ✓ Low creep, which guarantees the integrity of the marginal borders and the conservation of the morphology through time.
- ✓ Excellent condensation.
- ✓ Two options of working time: Regular set and fast set.

**2. INFORMATION ABOUT COMPOSITION**

The high content of copper and the absence of zinc in the compositions of the alloy allow obtaining an amalgam with a mechanical and corrosion resistance.

**CHEMICAL COMPOSITION OF THE ALLOY**



**3. PROPERTIES OF THE PRODUCT**

The compliance of the normative parameters that apply to the product is guaranteed with the choosing and using of high-quality raw materials and a productive certified and standardized process. So, based on international standards, the fulfillments of the physical-chemical and mechanical properties of the product are verified in Quality Control Lab through the usage of

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specialized and calibrated equipment. Some of the more relevant properties are shown in the following table.

PROPERTY	VALUE
Compressive strength at 1 hour	> 100 MPa
Compressive strength at 24 hours	> 350 MPa
Creep	< 0.3%
Corrosion resistance	Non-Gama 2
Dimensional stability	Zinc-free

**4. USES AND APPLICATIONS**

The amalgam made with alloy *Nu Alloy® dp 40* is used for the restoration of the morphology and functionality of the posterior teeth (molars and premolars) in cavities class I and II, when they have lost their structure due to injuries such as cavities or fractures.

**5. QUALITY ASSURANCE OF THE PRODUCT**

In the Quality Control Lab international standards are applied which evidence the compliance of the parameters of quality associated to the products, starting from the raw materials to the finished product in the conditions sent to the client.



Chemical analysis:  
Raw materials purity and alloy composition



Absence of foreign materials



Weight controls



Working time and amalgama appearance



Mechanical properties:  
Compressive strength and creep



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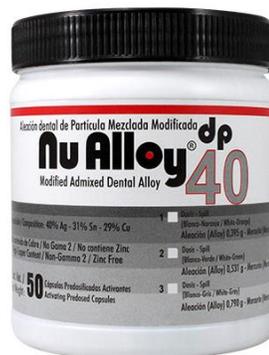
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**6. INSTRUCTIONS FOR USE**

- ❖ If powder presentation is used, then make a mixture 1/0.9 (47.5%Hg) of alloy and mercury for regular set or 1/0.98 (49.6%Hg) for fast set. If predosed capsule is used the do the manual activation.
- ❖ Use the adequate time and speed in the amalgamator that allows obtaining a shiny plastic amalgam.
- ❖ Condensate the amalgam immediately in the tooth cavity, trying to make enough pressure to guarantee a full adaptation of the restorations.
- ❖ Rebuild the superficial morphology of the tooth through the appropriate carving and polish.
- ❖ Polish the finished surface of the restoration to obtain a smooth surface resistant to corrosion and the adherence of bacterial plaque.

**7. COMMERCIAL PRESENTATIONS**

- Powder in a jar x 30 g (no mercury included).
- Disposable pre-dosed capsules of 1, 2 and 3 spill x 50, 100, 200 and 500 units.



SPILL	REGULAR HARDENING			FAST HARDENING		
	Capsule color	Alloy (g)	Mercury (g)	Capsule color	Alloy (g)	Mercury (g)
1	White/Orange	0.395	0.357	White/yellow	0.395	0.388
2	White/Green	0.531	0.480	White/blue	0.531	0.522
3	White/Gray	0.790	0.714	White/black	0.790	0.776

**8. STORAGE AND PRESERVATION CONDITIONS**

The product must preferable be kept in its original container to avoid any type of contamination. It must be placed in a clean, dry and fresh place (28 °C maximum), away from direct sunlight. Keep the product out of the reach of children.

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